

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A vaporizer comprising:

a vaporizing chamber including a vaporizing surface configured to vaporize a liquid material ~~and thereby form a gas material~~;

a spray portion configured to spray the liquid material in the vaporizing chamber;

a delivery part configured attached to the vaporizing chamber and including a gas outlet to deliver ~~the~~ a gas material from generated inside the vaporizing chamber to a gas outlet; and source material supply line;

a first heating portion configured to heat the vaporizer, vaporizing chamber; and

a second heating portion configured to heat a wall of the delivery part,

wherein the delivery part comprises

a filter member covering the gas outlet and configured including a peripheral portion set in thermal contact with and fixed to allow the gas material to pass therethrough wall of the delivery part, and

a heat transfer member set in thermal contact with the filter member at a position other than a peripheral portion and configured to transfer heat of the second heating portion to the filter member,

wherein the second heating portion and the filter member are separated from each other, and the heat transfer member is disposed between the second heating portion and the filter member and supports the filter member.

Claim 2 (Currently Amended): The vaporizer according to claim 1, further comprising a control member configured to control temperature of the second heating portion based on temperature of the heat transfer member or the filter member.

Claim 3 (Original): The vaporizer according to claim 1, wherein the heat transfer member comprises a plurality of heat transfer members.

Claim 4 (Original): The vaporizer according to claim 1, further comprising a heater incorporated in the heat transfer member.

Claims 5-7 (Canceled).

Claim 8 (Currently Amended): The vaporizer according to claim 6 35, wherein a space is disposed between the filter member and the shield plate to form a heated gas passage for delivering the gas material to the gas outlet.

Claim 9 (Original): The vaporizer according to claim 8, wherein a clearance is formed around the shield plate to allow the vaporizing chamber to communicate with the gas passage.

Claim 10 (Original): The vaporizer according to claim 8, wherein an opening is formed in the shield plate to allow the vaporizing chamber to communicate with the gas passage.

Claim 11 (Original): The vaporizer according to claim 10, wherein the opening comprises a slit, which is bent in a thickness direction of the shield plate.

Claim 12 (Currently Amended): The vaporizer according to claim 6 35, further comprising a control member configured to control temperature of the second heating portion based on temperature of the filter member or the shield plate.

Claim 13 (Currently Amended): The vaporizer according to ~~claim~~ 12, wherein the temperature of the filter member or the shield plate is set at substantially the same as the temperature of the first heating portion.

Claim 14 (Currently Amended): The vaporizer according to claim 12, further comprising a temperature sensor disposed at the shield plate, wherein the control member is configured to control the temperature of the second heating portion based on a signal detected by the sensor.

Claim 15 (Currently Amended): The vaporizer according to claim 6 35, further comprising a heater incorporated in the shield plate.

Claim 16 (Currently Amended): The vaporizer according to claim 6 38, wherein the first heating portion comprises a heater embedded in a wall of the vaporizing chamber.

Claim 17 (Currently Amended): A vaporizer comprising:  
a vaporizing chamber including a vaporizing surface configured to vaporize a liquid material ~~and thereby form a gas material~~;  
a spray portion configured to spray the liquid material in the vaporizing chamber;  
a delivery part ~~configured including a gas outlet~~ to deliver ~~the~~ gas material ~~from generated inside~~ the vaporizing chamber to a ~~gas outlet~~ source material supply line; and

a heating portion configured to heat the vaporizer,

wherein the delivery part comprises

a plate member covering the gas outlet and a wall around the gas outlet, with a gap

therebetween to form a communication clearance, such that a gas passage connecting the vaporizing chamber to the gas outlet is formed between the plate member and the wall,

~~a plurality of columns disposed in the gas passage to serve as a fluid baffle and to support the plate member, and~~

a heater configured to heat the gas material flowing through the gas passage,

a plurality of columns disposed and distributed in the gas passage to serve as a fluid

baffle and set in thermal contact with the wall to transfer heat from the heater,

wherein the plurality of columns are disposed to prevent the gas material, which flows toward the gas outlet, from directly reaching the gas outlet while traveling in a straight path from the communication clearance.

Claim 18 (Original): The vaporizer according to claim 17, wherein the heater is embedded in the plate member.

Claim 19 (Previously Presented): The vaporizer according to claim 18, wherein the plate member has a surface facing and directly exposed to the vaporizing chamber and configured to serve as a vaporizing surface for vaporizing the liquid material.

Claims 20-21 (Canceled).

Claim 22 (Currently Amended): The vaporizer according to claim 17, further comprising a temperature control section configured to control temperature of the ~~heating portion~~ heater based on temperature of the plate member.

Claim 23 (Previously Presented): The vaporizer according to claim 17, further comprising a filter member disposed between the gas outlet and the plate member and configured to allow the gas material to pass therethrough.

Claim 24 (Canceled).

Claim 25 (Original): An apparatus for performing a semiconductor process on a target substrate, the apparatus comprising:

a process chamber configured to accommodate the target substrate; and  
a gas supply system configured to supply a process gas into the process chamber,  
wherein the gas supply system comprises the vaporizer according to claim 1.

Claim 26 (Currently Amended): An apparatus for performing a semiconductor process on a target substrate, the apparatus comprising:

a process chamber configured to accommodate the target substrate; and  
a gas supply system configured to supply a process gas into the process chamber,  
wherein the gas supply system comprises the vaporizer according to claim 6 35.

Claim 27 (Original): An apparatus for performing a semiconductor process on a target substrate, the apparatus comprising:

a process chamber configured to accommodate the target substrate; and

a gas supply system configured to supply a process gas into the process chamber, wherein the gas supply system comprises the vaporizer according to claim 17.

Claim 28-33 (Canceled).

Claim 34 (Currently Amended): The vaporizer according to claim 6 35, wherein the shield plate is interposed between the vaporizing chamber and the filter member to prevent the gas material, which flows toward the gas outlet, from directly reaching the filter member while traveling in a straight path from the vaporizing chamber.

Claim 35 (Currently Amended): The vaporizer according to claim 1, further comprising a shield plate covering the filter member and disposed farther from a the gas outlet than is disposed the filter member.

Claims 36-37 (Canceled).

Claim 38 (New): The vaporizer according to claim 1, wherein the heat transfer member comprises columns disposed on the wall of the delivery part.

Claim 39 (New): The vaporizer according to claim 35, wherein the second heating portion comprises a heater embedded in the wall of the delivery part.

Claim 40 (New): The vaporizer according to claim 35, wherein the heat transfer member is formed to protrude from the wall of the delivery part.

Claim 41 (New): The vaporizer according to claim 35, wherein the shield plate is fixed to the heat transfer member along with the filter member with a spacer interposed between the shield plate and the filter member such that the shield plate receives heat through the heat transfer member and the spacer to from the second heating portion.

Claim 42 (New): The vaporizer according to claim 35, wherein the delivery part further comprises an exhaust passage.

Claim 43 (New): The vaporizer according to claim 9, wherein the shield plate is disposed to cover the filter member entirely in plane.

Claim 44 (New): The vaporizer according to claim 17, wherein the plurality of columns are arrayed in a staggered pattern.

Claim 45 (New): The vaporizer according to claim 17, further comprising a heating member embedded in the wall.